

DOCKET NO.: ISIS-5203

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Brenda F. Baker, et al.

Confirmation No.: 7522

Application No.: 10/700,920

Group Art Unit: 1635

Filing Date: November 4, 2003

Examiner: Not Yet Assigned

For: **OLIGOMERIC COMPOUNDS HAVING MODIFIED BASES FOR BINDING TO CYTOSINE AND URACIL OR THYMINE AND THEIR USE IN GENE MODULATION**

DATE OF DEPOSIT: *April 12, 2004*

I HEREBY CERTIFY THAT THIS PAPER IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL, POSTAGE PREPAID, ON THE DATE INDICATED ABOVE AND IS ADDRESSED TO THE UNITED STATES PATENT AND TRADEMARK OFFICE, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450.

*Elizabeth A. McLoud*

TYPED NAME: Elizabeth A. McLoud

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:



**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Pursuant to 37 CFR § 1.56 and in accordance with 37 CFR §§ 1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 CFR § 1.56(b).

- ☒ In accordance with § 1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified application, within three months of the date of entry into the national stage of

the above identified application as set forth in § 1.491, before the mailing date of a first Office Action on the merits of the above-identified application, or before the mailing date of a first Office Action after the filing of request for continued examination under § 1.114, no additional fee is required.

- ☐ In accordance with § 1.129(a), this Information Disclosure Statement is being filed in connection with ☐ the first or ☐ second After Final Submission, therefore:

☐ Certification in Accordance with § 1.97(e) is attached; or

☐ The fee of **\$180.00** as set forth in § 1.17(p) is attached.

- ☐ In accordance with § 1.97(c), this Information Disclosure Statement is being filed after the period set forth in § 1.97(b) above but before the mailing date of either a Final Action under § 1.113 or a Notice of Allowance under § 1.311, or before an action that otherwise closes prosecution in the application, therefore:

☐ Certification in Accordance with § 1.97(e) is attached;

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☐ The fee of **\$180.00** as set forth in § 1.17(p) is attached.

- ☐ In accordance with § 1.97(d), this Information Disclosure Statement is being filed after the mailing date of either a Final Action under § 1.113 or a Notice of Allowance under § 1.311 but before, or simultaneously with, the payment of the Issue Fee, therefore included are: Certification in Accordance with § 1.97(e); and the submission fee of **\$180.00** as set forth in § 1.17(p).

- ☐ Copies of each of the references listed on the attached Form PTO-1449 are enclosed herewith.

- ☒ Copies of references listed on the attached Form PTO-1449 are enclosed herewith
- ☒ Copies of references listed on the attached Form PTO 1449 are not required to be submitted pursuant to the June 30, 2003 recent revisions to 37 CFR § 1.98(a)(2)(i).

## EXCEPT THAT:

- ☒ In view of the voluminous nature of references 3, 16 and 23-25, and the likelihood that these references are available to the Examiner, copies are not enclosed herewith.
- ☒ In accordance with § 1.98(d), copies of the following references listed on the attached Form PTO-1449 are not enclosed herewith because they were previously cited by or submitted to the U.S. Patent and Trademark Office in patent application(s) for which a claim for priority under 35 U.S.C. § 120 have been made in the instant application:
  - ☒ Copies of references **3-28, 156-183 and 222-228** listed on the attached Form PTO-1449 were previously cited by or submitted to the Patent and Trademark Office in prior Application No. **08/659,440**, filed **June 6, 1996** now U.S. Patent No. **5,898,031**; copies of references **29-112, 184-192 and 229-230** listed on the attached Form PTO-1449 were previously cited by or submitted to the Patent and Trademark Office in prior Application No. **08/870,608**, filed **June 6, 1997** now U.S. Patent **6,107,094**; copies of references **113-129, 193-195 and 231** listed on the attached Form PTO-1449 were previously

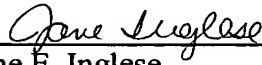
cited by or submitted to the Patent and Trademark Office in  
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3050. This form is submitted in duplicate.

☐ The relevance of those listed references which are not in the English language is as  
follows:

☒ There are no listed references which are not in the English language.

Date: April 12, 2004

  
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\* A copy of this reference will not be forwarded to the U.S. Patent and Trademark Office since it is believed to be too voluminous and easily obtainable by the Examiner.



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| 151   | Tabara, H., et al., "RNAi in <i>C. elegans</i> : soaking in the genome sequence," <i>Science</i> , October 16, 1998, 282, 430-431  |                               |
| 152   | Tijsterman, M., et al., "RNA helicase MUT-14-dependent gene silencing triggered in <i>C. elegans</i> by short antisense RNAs," <i>Science</i> , January 25, 2002, 295, 694-697   |                               |
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|   | Applicant<br>Brenda F. Baker, et al. |  |
|   | Filing Date<br>November 4, 2003      | Group<br>Not Yet Assigned  |
|   | Confirmation No.<br>Not Yet Assigned |  |
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|   | 153                                  | Timmons, L., et al., "Ingestion of bacterially expressed dsRNAs can produce specific and potent genetic interferences in <i>Caenorhabditis elegans</i> ," <i>Gene</i> , <b>2001</b> , 263, 103-112 |
|   | 154                                  | Timmons, L., et al., "Specific interference by ingested dsRNA," <i>Nature</i> , October 29, <b>1998</b> , 395, page 854  |
|   | 155                                  | Tuschl, T., et al., "Targeted mRNA degradation by double-stranded RNA in vitro," <i>Genes &amp; Dev.</i> , <b>1999</b> , 13, 3191-3197   |
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| <b>Form PTO-1449 Modified</b><br><br>List of Patent and Publications<br>Cited by Applicant<br>(Use several sheets if necessary)<br><br>U.S. Department of Commerce<br>Patent and Trademark Office |     |                 |          | Docket No.<br>ISIS-5203              |       | Application No.<br>10/700,920 |  |
|---|-----|-----------------|----------|--------------------------------------|-------|-------------------------------|--|
|   |     |                 |          | Applicant<br>Brenda F. Baker, et al. |       |                               |  |
|   |     |                 |          | Filing Date<br>November 4, 2003      |       | Group<br>Not Yet Assigned     |  |
|   |     |                 |          | Confirmation No.<br>Not Yet Assigned |       |                               |  |
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| Examiner<br>Initial   |     | Document<br>No. | Date     | Name                                 | Class | Subclass                      |  |
|   | 156 | 3,687,808       | 8/29/72  | Merigan, et. al.                     | 195   | 28                            |  |
|   | 157 | 5,013,830       | 5/7/91   | Ohtsuka, et al.                      | 536   | 27                            |  |
|   | 158 | 5,023,243       | 6/11/91  | Tullis                               | 514   | 44                            |  |
|   | 159 | 5,130,302       | 7/14/92  | Spielvogel, et al.                   | 514   | 45                            |  |
|   | 160 | 5,142,047       | 8/25/92  | Tullis                               | 514   | 44                            |  |
|   | 161 | 5,149,797       | 9/22/92  | Pederson, et al.                     | 536   | 27                            |  |
|   | 162 | 5,177,198       | 1/5/93   | Spielvogel, et al.                   | 514   | 45                            |  |
|   | 163 | 5,223,618       | 6/29/93  | Cook, et al.                         | 544   | 276                           |  |
|   | 164 | 5,235,033       | 8/10/93  | Summerton, et al.                    | 528   | 391                           |  |
|   | 165 | 5,256,775       | 10/26/93 | Froehler                             | 536   | 25.6                          |  |
|   | 166 | 5,264,562       | 11/23/93 | Matteucci                            | 536   | 23.1                          |  |
|   | 167 | 5,264,564       | 11/23/93 | Matteucci                            | 536   | 23.1                          |  |
|   | 168 | 5,359,044       | 10/25/94 | Cook, et al.                         | 536   | 23.1                          |  |
|   | 169 | 5,366,878       | 11/22/94 | Pederson, et al.                     | 435   | 91.3                          |  |
|   | 170 | 5,378,825       | 1/3/95   | Cook, et al.                         | 536   | 25.34                         |  |
|   | 171 | 5,457,191       | 10/10/95 | Cook, et al.                         | 536   | 27.13                         |  |
|   | 172 | 5,459,255       | 10/17/95 | Cook, et al.                         | 536   | 27.13                         |  |
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|   |     |                         |             | Applicant<br>Brenda F. Baker, et al. |              |                               |  |
|   |     |                         |             | Filing Date<br>November 4, 2003      |              | Group<br>Not Yet Assigned     |  |
|   |     |                         |             | Confirmation No.<br>Not Yet Assigned |              |                               |  |
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| <b>Examiner<br/>Initial</b>   |     | <b>Document<br/>No.</b> | <b>Date</b> | <b>Name</b>                          | <b>Class</b> | <b>Subclass</b>               |  |
|   | 173 | 5,466,786               | 11/14/95    | Buhr, et al.                         | 536          | 26.26                         |  |
|   | 174 | 5,476,925               | 12/19/95    | Letsinger, et al.                    | 536          | 23.1                          |  |
|   | 175 | 5,484,908               | 1/16/96     | Froehler, et al.                     | 536          | 24.31                         |  |
|   | 176 | 5,506,351               | 4/9/96      | McGee                                | 536          | 55.3                          |  |
|   | 177 | 5,514,786               | 5/7/96      | Cook, et al.                         |              |                               |  |
|   | 178 | 5,386,023               | 1/31/95     | Sanghvi, et al.                      | 536          | 25.3                          |  |
|   | 179 | 5,489,677               | 2/6/96      | Sanghvi, et al.                      | 536          | 22.1                          |  |
|   | 180 | 5,539,083               | 7/23/96     | Cook, et al.                         | 530          | 333                           |  |
|   | 181 | 5,506,337               | 4/9/96      | Summerton, et al.                    | 528          | 391                           |  |
|   | 182 | 5,403,711               | 4/4/95      | Walder, et al.                       | 435          | 6                             |  |
|   | 183 | 5,508,270               | 4/16/96     | Baxter, et al.                       | 514          | 47                            |  |
|   | 184 | 4,373,071               | 02/08/83    | Itakura                              | 525          | 375                           |  |
|   | 185 | 4,401,796               | 08/30/83    | Itakura                              | 525          | 340                           |  |
|   | 186 | 4,469,863               | 9/4/84      | Ts'o., et al.                        | 536          | 27                            |  |
|   | 187 | 4,507,433               | 3/26/85     | Miller, et al.                       | 525          | 54.11                         |  |
|   | 188 | 4,812,512               | 3/14/89     | Buendia, et al.                      | 525          | 54.11                         |  |
|   | 189 | 4,908,405               | 3/13/90     | Bayer, et al.                        | 525          | 61                            |  |
|   | 190 | 5,391,667               | 2/21/95     | Dellinger                            | 526          | 264                           |  |
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|   |            |                         |             | Applicant<br>Brenda F. Baker, et al. |              |                               |  |
|   |            |                         |             | Filing Date<br>November 4, 2003      |              | Group<br>Not Yet Assigned     |  |
|   |            |                         |             | Confirmation No.<br>Not Yet Assigned |              |                               |  |
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| <b>Examiner<br/>Initial</b>   |            | <b>Document<br/>No.</b> | <b>Date</b> | <b>Name</b>                          | <b>Class</b> | <b>Subclass</b>               |  |
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|   | <b>192</b> | 5,614,617               | 3/25/97     | Cook, et al.                         | 536          | 23.1                          |  |
|   | <b>193</b> | 5,962,425               | 10/05/99    | Walder, et al.                       | 514          | 44                            |  |
|   | <b>194</b> | 5,804,683               | 09/08/98    | Usman et al.                         | 536          | 25.31                         |  |
|   | <b>195</b> | 5,891,683               | 04/06/99    | Usman et al.                         | 435          | 91.31                         |  |
|   | <b>196</b> | 5,898,031               | 04/27/99    | Crooke, et al.                       | 435          | 172.3                         |  |
|   | <b>197</b> | 6,107,094               | 08/22/00    | Crooke                               | 435          | 455                           |  |
|   | <b>198</b> | 4,845,205               | 07/04/89    | Huynh Dinh, et al.                   | 536          | 28                            |  |
|   | <b>199</b> | 5,525,711               | 06/11/96    | Hawkins, et al.                      | 536          | 22.1                          |  |
|   | <b>200</b> | 5,587,469               | 12/24/96    | Cook, et al.                         | 536          | 23.1                          |  |
|   | <b>201</b> | 5,587,470               | 12/24/96    | Cook, et al.                         | 536          | 23.1                          |  |
|   | <b>202</b> | 5,594,121               | 01/14/97    | Froehler, et al.                     | 536          | 23.5                          |  |
|   | <b>203</b> | 5,596,091               | 01/21/97    | Switzer                              | 536          | 24.5                          |  |
|   | <b>204</b> | 5,681,941               | 10/28/97    | Cook, et al.                         | 536          | 23.1                          |  |
|   | <b>205</b> | 5,691,307               | 11/25/97    | Moschel, et al.                      | 514          | 12                            |  |
|   | <b>206</b> | 5,789,562               | 08/04/98    | Seela, et al.                        | 536          | 22.1                          |  |
|   | <b>207</b> | 5,808,027               | 09/15/98    | Cook, et al.                         | 536          | 23.1                          |  |
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|   |            |                         |             | Applicant<br>Brenda F. Baker, et al. |              |                               |  |
|   |            |                         |             | Filing Date<br>November 4, 2003      |              | Group<br>Not Yet Assigned     |  |
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| <b>Examiner<br/>Initial</b>   |            | <b>Document<br/>No.</b> | <b>Date</b> | <b>Name</b>                          | <b>Class</b> | <b>Subclass</b>               |  |
|   | <b>208</b> | 5,811,534               | 09/22/98    | Cook, et al.                         | 536          | 23.1                          |  |
|   | <b>209</b> | 5,824,796               | 10/20/98    | Petrie, et al.                       | 536          | 26.7                          |  |
|   | <b>210</b> | 5,844,106               | 12/01/98    | Seela, et al.                        | 536          | 22.1                          |  |
|   | <b>211</b> | 5,898,031               | 04/27/99    | Crooke,                              | 435          | 172.3                         |  |
|   | <b>212</b> | 5,948,903               | 09/07/99    | Cook, et al.                         | 536          | 25.34                         |  |
|   | <b>213</b> | 6,001,983               | 12/14/99    | Benner                               | 536          | 23.1                          |  |
|   | <b>214</b> | 6,066,720               | 05/23/00    | Seela, et al.                        | 536          | 22.1                          |  |
|   | <b>215</b> | 6,093,807               | 07/25/00    | Balow, et al.                        | 536          | 23.1                          |  |
|   | <b>216</b> | 6,107,094               | 08/22/00    | Crooke                               | 435          | 455                           |  |
|   | <b>217</b> | 6,127,121               | 10/03/00    | Meyer, Jr., et al.                   | 435          | 6                             |  |
|   | <b>218</b> | 6,143,877               | 11/07/00    | Meyer, et al.                        | 536          | 22.1                          |  |
|   | <b>219</b> | 6,174,998 B1            | 01/16/01    | Mühlegger, et al.                    | 536          | 4.1                           |  |
|   | <b>220</b> | 6,211,158 B1            | 04/03/01    | Seela, et al.                        | 514          | 44                            |  |
|   | <b>221</b> | 6,268,132 B1            | 07/31/01    | Conrad                               | 435          | 6                             |  |
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|   |     |                |          | Applicant<br>Brenda F. Baker, et al. |             |                               |  |
|   |     |                |          | Filing Date<br>November 4, 2003      |             | Group<br>Not Yet Assigned     |  |
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| Examiner<br>Initial   |     | Document No.   | Date     | Country                              | Translation |                               |  |
|   |     |                |          |                                      | YES         | NO                            |  |
|   | 222 | WO 92/20822    | 11/26/92 | PCT                                  |             |                               |  |
|   | 223 | WO 92/20823    | 11/26/92 | PCT                                  |             |                               |  |
|   | 224 | WO 92/22651    | 12/23/92 | PCT                                  |             |                               |  |
|   | 225 | WO 94/02499    | 02/03/94 | PCT                                  |             |                               |  |
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|   | 228 | 339,842        | 11/02/89 | EPO                                  |             |                               |  |
|   | 229 | 2-264792       | 10/29/90 | Japan                                |             |                               |  |
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|   | 231 | WO 99/32619    | 7/1/99   | PCT                                  |             | X                             |  |
|   | 232 | WO 00/44895    | 08/03/00 | PCT                                  | X abstract  |                               |  |
|   | 233 | WO 00/44914    | 08/03/00 | PCT                                  |             |                               |  |
|   | 234 | WO 00/49035    | 08/24/00 | PCT                                  |             |                               |  |
|   | 235 | WO 00/63364    | 10/26/00 | PCT                                  |             |                               |  |
|   | 236 | WO 01/29058    | 04/26/01 | PCT                                  |             |                               |  |
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|   |     |                |          | Applicant<br>Brenda F. Baker, et al. |             |                               |  |
|   |     |                |          | Filing Date<br>November 4, 2003      |             | Group<br>Not Yet Assigned     |  |
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| Examiner<br>Initial   |     | Document No.   | Date     | Country                              | Translation |                               |  |
|   |     |                |          |                                      | YES         | NO                            |  |
|   | 238 | WO 01/36646 A2 | 05/25/01 | PCT                                  |             |                               |  |
|   | 239 | WO 01/48183 A2 | 07/05/01 | PCT                                  |             |                               |  |
|   | 240 | WO 01/75164 A3 | 10/11/01 | PCT                                  |             |                               |  |
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